

NISTTech

Article And Process For Selective Deposition

Abstract

A process for depositing a metal includes disposing an activating catalyst on a substrate; contacting the activating catalyst with a metal cation from a vapor deposition composition; contacting the substrate with a reducing anion from the vapor deposition composition; performing an oxidation-reduction reaction between the metal cation and the reducing anion in a presence of the activating catalyst; and forming a metal from the metal cation to deposit the metal on the substrate. A system for depositing a metal includes an activating catalyst to deposit on a substrate; and a primary reagent to form: a metal cation to deposit on the substrate as a metal; and a reducing anion to provide electrons to the activating catalyst, the metal cation, the substrate, or a combination thereof, wherein the primary reagent forms the metal cation and the reducing anion in response to being subjected to a dissociating condition

Status of Availability

This invention is available for licensing exclusively or non-exclusively in any field of use.

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